



DEFENSE INFORMATION SYSTEMS AGENCY

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IN REPLY
REFER TO: Joint Interoperability Test Command (JTE)

1 Jun 12

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of the Hewlett Packard (HP) A7500 Series with Release 5.20

References: (a) DoD Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) CJCSI 6212.01E, "Interoperability and Supportability of Information Technology and National Security Systems," 15 December 2008
(c) through (f), see Enclosure

1. References (a) and (b) establish the Defense Information Systems Agency (DISA), Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.

2. The HP A7510 and A7506 with Release 5.20 are hereinafter referred to as the system under test (SUT). The vendor submitted a Desktop Review (DTR) request to include subcomponent JC712A in addition to JD229B, which was included in the original certification. The SUT meets all of its critical interoperability requirements and is certified for joint use within the Defense Information System Network (DISN) as an Assured Services Local Area Network (ASLAN) core, distribution, and access switch. The SUT is certified as interoperable for joint use within the DISN with other ASLAN components listed on the Unified Capabilities (UC) Approved Products List (APL) with the following interfaces: 10000/1000Base SX/LX, 100BaseFX, and 10/100/1000BaseT. The SUT met the critical interoperability requirements set forth in Reference (c) using test procedures derived from Reference (d). The HP A7506-V and A7503 employ the same software and similar hardware as the SUT. The JITC analysis determined these systems to be functionally identical to the SUT for interoperability certification purposes and they are also certified for joint use.

The SUT is certified to support Defense Switched Network (DSN) Assured Services over Internet Protocol. If a component meets the minimum requirements for deployment in an ASLAN, it also meets the lesser requirements for deployment in a non-ASLAN. Non-ASLANs are "commercial grade" and provide support to Command and Control (C2) (ROUTINE only calls) (C2(R)) or non-C2 voice subscribers. The SUT is certified for joint use deployment in a non-ASLAN for C2R and non-C2 traffic. When deployed in a non-ASLAN, the SUT may also be used to receive all levels of precedence, but is limited to supporting calls that are originated at ROUTINE precedence only. Non-ASLANs do not meet the availability or redundancy requirements for C2 or Special C2 users and therefore are not authorized to support precedence calls originated above ROUTINE.

Testing of the SUT did not include video services or data applications; however, simulated preferred data, best effort data, and video traffic was generated during testing to determine the SUT's ability to prioritize and properly queue voice media and signaling traffic. No other configurations, features, or functions, except those cited within this document, are certified by the JITC. This certification expires upon changes that affect interoperability, but no later than three years from the date of Defense Information Assurance (IA)/Security Accreditation Working Group (DSAWG) accreditation (23 November 2010).

3. The extension of this certification is based on Desktop Review 3 (DTR 3). The original certification is based on interoperability testing conducted by JITC, DISA adjudication of open test discrepancy reports (TDRs), review of the vendor's Letters of Compliance (LoC), and DSAWG accreditation. Interoperability testing was conducted by JITC at the Global Information Grid Network Test Facility, Fort Huachuca, Arizona, from 11 January through 19 March 2010 and documented in Reference (e). Review of the vendor's LoC was completed on 3 May 2010. DISA adjudication of outstanding TDRs was completed on 3 May 2010. DSAWG granted accreditation on 23 November 2010 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (f). The test and certification was conducted on 3Com switches, which have all been renamed after HP purchased 3Com in 2010. The documentation for the 3Com certification is provided in Reference (g). This DTR was requested to include subcomponent JC712A in addition to JD229B, which was included in the original certification. There are no physical differences between the two cards, just a different site of manufacture; either card may be used in lieu of the other. Therefore, JITC approves this DTR. The IA posture has not changed. As of the date of this memorandum the vendor has stated intent to address compliance with Request for Comment (RFC) 4007, RFC 2404, and RFC 3315 in their next DTR request. The original IA approval applies to this DTR.

Table 1. HP to 3Com Switch Product Cross-Reference

3Com Switch¹	HP Switch¹	Function
3CS7910E	A7510	Core, Distribution, Access Switch
3CS7906E	A7506	Core, Distribution, Access Switch
S7906E-V	A7506-V	Core, Distribution, Access Switch
S7903E	A7503	Core, Distribution, Access Switch
3Com Switch Subcomponent¹	HP Switch Subcomponent¹	Function
0231A92P	JD202A	12-Port Advanced 1000BASE-X Module (SFP)
0231A79J	JD207A	12-port 100/1000BASE-X Module (SFP)
0231A998	JD220A (JC701A)	Salience VI-Plus 768G Switch Fabric
0231A935	JD195A	384G Advanced Switch Fabric
0231A934	JF219B	384G Switch Fabric support smaller mac/routing table
0231A998	JD224A	384 Gbps Fabric with additional 12 1000BASE-X SFP
0231A933	JD193B (JC699A)	384G Switch Fabric, with 2 10GBASE-X (XFP)
0231A0AE	JD191A (JC713A)	8-port 10GBASE-X Extended (XFP)
0231A973	JD232A	4 port 10GBASE-X Enhanced (XFP)
0231A977	JD235A (JC719A)	4 port 10GBASE-X Extended (XFP)
0231A974	JD233A (JC716A)	2-port 10GBASE-X (XFP) Enhanced
0231A978	JD236A	2-port 10GBASE-X (XFP) Extended
0231A92Q	JD201A	S7900E 2-Port 10GBASE-X (XFP)
0231A76P	JD200A	1-port 10GBASE-X XFP
0231A92W	JD199B	48-port 10/100/1000BASE-TX
NA	JD229B	48 port Gig-T PoE+
NA	JC712A ²	48 port Gig-T PoE+
0231A48J	JD192A³	DIMM Power over Ethernet Module
0231A930	JD210A	48-Port 10/100/1000BASE-T Module

Table 1. HP to 3Com Switch Product Cross-Reference (continued)

3Com Switch Subcomponent¹	HP Switch Subcomponent¹	Function
0231A92X	JD221A	48-Port 1000BASE-X Module(SFP)
0231A972	JD231A (JC715A)	24-port 100/1000BASE-X Combo Enhanced (SFP)
0231A975	JD234A (JC718A)	24-port 100/1000BASE-X Extended (SFP)
0231A932	JD204B	24-Port 10/100/1000BASE-T Module (RJ45)
0231A90F	JD223A	24-Port 1000BASE-X/100BASE-FX Module with 8 Combo Ports (SFP)
0231A931	JD203B	24-Port 1000BASE-X Module (SFP)
0231A971	JD230A (JD714A)	24-port 1000BASE-X Combo (SFP) with 2-port 10GBASE-X Extended (XFP)
0231A76V	JD206A	24-port 10/100/1000BASE-T (RJ45) with 2-port 10GBASE-X Module (XFP)
0231A92N	JD205A	24-Port 1000BASE-X (SFP) and 2-Port 10GBASE-X Module (XFP)
<p>NOTES:</p> <p>1. Components bolded and underlined were tested by JITC. The other components in the family series were not tested; however, they utilize the same software and hardware and JITC analysis determined them to be functionally identical for interoperability certification purposes and they are also certified for joint use.</p> <p>2. This DTR includes subcomponent JC712A in addition to JD229B, which was covered in the original certification. There are no physical differences between the two cards, just a different site of manufacture. Either card may be used in lieu of the other.</p> <p>3. The 0231a92w/JE147A 48-port 10/100/1000BASE-TX Ethernet card includes two optional DIMM power over Ethernet modules (part number 0231A48J/JD192A). This card is certified for joint use with or without the DIMM modules. Each module provides Power over Ethernet for 24 ports.</p> <p>LEGEND:</p> <p>DIMM Dual Inline Memory Package Gbps Gigabits per second HP Hewlett Packard JITC Joint Interoperability Test Command</p> <p>PWR Power over Ethernet SFP Small Form Factor Pluggable XFP 10 Gigabit Small Form Factor Pluggable</p>		

4. Table 2 provides the SUT's interface status. The SUT capability and functional requirements are listed in Table 3.

Table 2. SUT Interface Status

Interface	Applicability			CRs/FRs (See note 1.)	Status		
	Co	D	A		Co	D	A
Network Management Interfaces for Core Layer Switches							
EIA/TIA-232 (Serial)	R	R	R	EIA/TIA-232	Met	Met	Met
IEEE 802.3i (10BaseT UTP)	C	C	C	1, 6-15, 18-28, 31, 32-36, 48-53, 58-60, 65, 67-71	Not Tested ²		
IEEE 802.3u (100BaseT UTP)	C	C	C	1, 6-15, 18-28, 31, 32-36, 48-53, 58-60, 65, 67-71	Met ³	Met ³	Met ³
IEEE 802.3ab (1000BaseT UTP)	C	C	C	1, 6-15, 18-28, 31, 32-36, 48-53, 58-60, 65, 67-71	Met ³	Met ³	Met ³
Uplink Interfaces for Core Layer Switches							
IEEE 802.3u (100BaseT UTP)	R	R	R	1-15, 16, 18-24, 28-31, 40, 44-53, 55-60, 65-75	Met ^{3,4}	Met ^{3,4}	Met ^{3,4}
IEEE 802.3u (100BaseFX)	C	C	C	1-6, 11, 16, 18-24, 28-31, 40-41, 44-53, 55-60, 65-75	Met ^{3,4}	Met ^{3,4}	Met ^{3,4}
IEEE 802.3ab (1000BaseT UTP)	C	C	C	1-16, 18-24, 28-31, 40, 44-53, 55-60, 65-75	Met ^{3,4}	Met ^{3,4}	Met ^{3,4}
IEEE 802.3z (1000BaseX Fiber)	R	R	C	1-5, 8-16, 18-24, 28-31, 40, 44-53, 55-60, 65-75	Met ^{3,4}	Met ^{3,4}	Met ^{3,4}
IEEE 802.3ae (10GBaseX)	C	C	C	1-5, 8-16, 18, 19, 40-41, 44-53, 55-60, 65-75	Met ^{3,4}	Met ^{3,4}	Met ^{3,4}
Access Interfaces for Core Layer Switches							
IEEE 802.3i (10BaseT UTP)	C	C	R	1-15, 18-24, 28-41, 44-54, 58-71	Met ^{3,5}	Met ^{3,5}	Met ^{3,5}
IEEE 802.3u (100BaseT UTP)	R	R	R	1-15, 18-24, 28-41, 44-54, 58-71	Met ^{3,5}	Met ^{3,5}	Met ^{3,5}
IEEE 802.3u (100BaseFX)	C	C	C	1-6, 11, 18-24, 28-31, 44-54, 58-71	Met ^{3,5}	Met ^{3,5}	Met ^{3,5}
IEEE 802.3ab (1000BaseT UTP)	C	C	C	1-15, 18-24, 28-41, 44-54, 58-71	Met ^{3,5}	Met ^{3,5}	Met ^{3,5}
IEEE 802.3z (1000BaseX Fiber)	R	R	C	1-6, 11, 18-24, 28-31, 44-54, 58-71	Met ^{3,5}	Met ^{3,5}	Met ^{3,5}
Generic Requirements for all Interfaces							
Generic Requirements not associated with specific interfaces	R	R	R	30-32, 35, 36, 40, 69-71	Met	Met	Met
DoD IPv6 Profile Requirements	R	R	R	UCR Section 5.3.5.5	Met ^{3,4,5}	Met ^{3,4,5}	Met ^{3,4,5}
Security	R	R	R	UCR Sections 5.3.1.3.8, 5.3.1.5, 5.3.1.6, and 5.4	Met ⁶	Met ⁶	Met ⁶

Table 2. SUT Interface Status (continued)

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the Hewlett Packard (HP) A7500 Series with Release 5.20

NOTES:

- 1 The SUT's specific capability and functional requirement ID numbers depicted in the CRs/FRs column can be cross-referenced in Table 3. These requirements are for the following HP switches, which are certified in the ASLAN Core, Distribution, and Access layers: **A7510**, **A7506**, A7506-V, and A7503. JITC tested the devices that are bolded and underlined. The other devices listed that are not bolded or underlined are in the same family series as the SUT were not tested; however, they utilize the same OS software and hardware and JITC analysis determined them to be functionally identical for interoperability certification purposes.
- 2 This interface is not offered by the SUT. This is not a required interface for a core, distribution, or access switch.
- 3 The SUT does not support the following IPv6 RFC: 4007 for ID number 53 depicted in Table 3. DISA adjudicated this as minor on 3 May 2010 with the stipulation that the vendor provide a POAM. The vendors original POAM stated they would comply by 1 October 2011 with a software update. As of the date of this memorandum the vendor has stated intent to address compliance with RFC 4007 in their next DTR request.
- 4 The SUT does not support the following authentication RFC: 2404 for ID number 74 depicted in Table 3. DISA adjudicated this as minor on 3 May 2010 with the stipulation that the vendor provide a POAM. The vendors original POAM stated they would comply by 1 January 2011 with a software update. As of the date of this memorandum the vendor has stated intent to address compliance with RFC 2404 in their next DTR request.
- 5 The SUT does not support the following IPv6 RFC: 3315 for ID number 54 depicted in Table 3. DISA adjudicated this as minor on 3 May 2010 with the stipulation that the vendor provide a POAM. The vendors original POAM stated they would comply by 1 January 2011 with a software update. As of the date of this memorandum the vendor has stated intent to address compliance with RFC 3315 in their next DTR request.
- 6 Security testing is accomplished via DISA-led Information Assurance test teams and published in a separate report, Reference (f).

LEGEND:

802.3ab	1000BaseT Gbps Ethernet over twisted pair at 1 Gbps (125 Mbps)	DISA	Defense Information Systems Agency
802.3ae	10 Gbps Ethernet	EIA	Electronic Industries Alliance
802.3i	10BaseT Mbps over twisted pair	EIA-232	Standard for defining the mechanical and electrical characteristics for connecting Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) data communications devices
802.3u	Standard for carrier sense multiple access with collision detection at 100 Mbps		
802.3z	Gigabit Ethernet Standard	FRs	Functional Requirements
10BaseT	10 Mbps (Baseband Operation, Twisted Pair) Ethernet	Gbps	Gigabits per second
100BaseT	100 Mbps (Baseband Operation, Twisted Pair) Ethernet	ID	Identification
100BaseFX	100 Mbps Ethernet over fiber	ICMP	Internet Control Message Protocol
1000BaseFX	1000 Mbps Ethernet over fiber	IEEE	Institute of Electrical and Electronics Engineers
1000BaseT	1000 Mbps (Baseband Operation, Twisted Pair) Ethernet	IPv6	Internet Protocol version 6
10GBaseX	10000 Mbps Ethernet over Category 5 Twisted Pair Copper	JITC	Joint Interoperability Test Command
A	Access	Mbps	Megabits per second
ASLAN	Assured Services Local Area Network	OS	Operating System
C	Conditional	POAM	Plan of Action and Milestones
Co	Core	R	Required
CRs	Capability Requirements	RFCs	Request for Comments
D	Distribution	SUT	System Under Test
		TIA	Telecommunications Industry Association
		UCR	Unified Capabilities Requirements
		UTP	Unshielded Twisted Pair

Table 3. SUT Capability and Functional Requirements

ID	Requirement (See note.)	UCR Reference
1	ASLAN components can have no single point of failure for >96 users for C2 and Special C2 users. Non-ASLAN components can have a single point of failure for C2(R) and non-C2 users. (R)	5.3.1.2.1, 5.3.1.7.7
2	Non-blocking of any voice or video traffic at 50%. (R)	5.3.1.3
3	Maximum of 1 ms of jitter for all ASLAN components. (R)	5.3.1.3
4	Maximum of 0.02% packet loss for core and distribution layer components and 0.01% for access layer components. (R)	5.3.1.3
5	Maximum of 2 ms latency for core and distribution layer components and 2 ms for access layer components. (R)	5.3.1.3
6	100 Mbps IAW IEEE 802.3u and 1 Gbps IAW IEEE 802.3z for core and distribution layer components and 10 Mbps IAW IEEE 802.3i and 100 Mbps IAW IEEE 802.3u for access layer components. (R)	5.3.1.3.1
7	Force mode and auto-negotiation IAW IEEE 802.3, filtering IAW RFC 1812, and flow control IAW IEEE 802.3x. (R)	5.3.1.3.2

Table 3. SUT Capability and Functional Requirements (continued)

ID	Requirement (See note.)		UCR Reference
8	Port Parameter Requirements	Auto-negotiation IAW IEEE 802.3. (R)	5.3.1.3.2
9		Force mode IAW IEEE 802.3. (R)	
10		Flow control IAW IEEE 802.3x. (R)	
11		Filtering IAW RFC 1812. (R)	
12		Link Aggregation IAW IEEE 802.3ad (output/egress ports only). (R)	
13		Spanning Tree Protocol IAW IEEE 802.1D. (R)	
14		Multiple Spanning Tree IAW IEEE 802.1s. (R)	
15		Rapid Reconfiguration of Spanning Tree IAW IEEE 802.1w. (R)	
16	LACP link Failover and Link Aggregation IAW IEEE 802.3ad (uplink ports only). (R)		5.3.1.3.2, 5.3.1.7.7.1
17	Class of Service Marking: Layer 3 DSCPs IAW RFC 2474. (R) Layer 2 3-bit user priority field of the IEEE 802.1Q 2-byte TCI field. (C)		5.3.1.3.3
18	VLAN Capabilities IAW IEEE 802.1Q. (R)		5.3.1.3.4
19	Protocols IAW DISR profile (IPv4 and IPv6). IPv4 (R: LAN Switch, Layer 2 Switch): IPv6 (R: LAN Switch, C: Layer 2 Switch). Note: Layer 2 switch is required to support only RFC 2460, 5095, 2464, and be able to queue packets based on DSCPs in accordance with RFC 2474.		5.3.1.3.5
20	QoS Features	Shall support minimum of 4 queues. (R)	5.3.1.3.6
21		Must be able to assign VLAN tagged packets to a queue. (R)	
22		Support DSCP PHBs per RFCs 2474, 2494, 2597, 2598, and 3246. (R: LAN Switch). Note: Layer 2 switch is required to support RFC 2474 only.	
23		Support a minimum of one of the following: Weighted Fair Queuing (WFQ) IAW RFC 3662, Priority Queuing (PQ) IAW RFC 1046, or Class-Based WFQ IAW RFC 3366. (R)	
24	Network Monitoring	Must be able to assign a bandwidth or percent of traffic to any queue. (R)	5.3.1.3.7
25		SNMP IAW RFC's 1157, 2206, 3410, 3411, 3412, 3413, and 3414. (R)	
26		SNMP traps IAW RFC1215. (R)	
27	Network Monitoring	Remote monitoring IAW RFC1281 and Advanced Encryption Standard (AES) Cipher Algorithm in the SNMP User-based Security Model IAW RFC 3826. (R)	5.3.1.3.9
28		Product Requirements Summary IAW UCR2008 Table 5.3.1-5. (R)	
29	E2E Performance (Voice)	No more than 5 ms Latency over any 5-minute period measured under congestion. (R)	5.3.1.4.1
		No more than 3 ms Jitter over any 5-minute period measured under congestion. (R)	
		Packet loss not to exceed engineered (queuing) parameters over any 5-minute period under congestion. (R)	
30	E2E Performance (Video)	No more than 30 ms Latency over any 5-minute period measured under congestion. (R)	5.3.1.4.2
		No more than 30 ms Jitter over any 5-minute period measured under congestion. (R)	
		Packet loss not to exceed engineered (queuing) parameters over any 5-minute period under congestion. (R)	
31	E2E Performance (Data)	No more than 50 ms Latency over any 5-minute period measured under congestion (R)	5.3.1.4.3
		Packet loss not to exceed engineered (queuing) parameters over any 5-minute period under congestion. (R)	
32	LAN Network Management	Configuration Control for ASLAN and non-ASLAN. (R)	5.3.1.6.1
33		Operational Controls for ASLAN and non-ASLAN. (R)	5.3.1.6.2
34		Performance Monitoring for ASLAN and non-ASLAN. (R)	5.3.1.6.3
35		Alarms for ASLAN and non-ASLAN. (R)	5.3.1.6.4
36		Reporting for ASLAN and non-ASLAN. (R)	5.3.1.6.5
37	Redundancy	Redundant Power Supplies. (Required on standalone redundant products.)	5.3.1.7.7
38		Chassis Failover. (Required on standalone redundant products.)	
39		Switch Fabric Failover. (Required on standalone redundant products.)	
40		Non-LACP Link Failover.(R)	
41		Fiber Blade Failover. (R)	
42		Stack Failover. (C) (Required if the stack supports more than 96 users.)	
43		CPU (routing engine) blade Failover. (R)	
44	MPLS	MPLS May not add measurable Loss or Jitter to system. (C)	5.3.1.8.4.1
45		MPLS Conforms to RFCs in Table 5.3.1-14. (C)	5.3.1.8.4.1
46		MPLS Support L2 and L3 VPNs. (C)	5.3.1.8.4.2.1 /2
47	IPv6 Product Requirements: Dual Stack for IPv4 and IPv6 IAW RFC 4213 if routing functions are supported. (C)		5.3.5.4
48	IPv6 System Requirements	Support IPv6 IAW RFCs 2460 and 5095 if routing functions are supported. (C)	5.3.5.4
49		Support IPv6 packets over Ethernet IAW RFC2464. (R)	5.3.5.4
50		Support MTU discovery IAW RFC 1981 if routing functions are supported. (C)	5.3.5.4.1
51		Support a minimum MTU of 1280 IAW RFCs 2460 and 5095. (R)	5.3.5.4.1
52		Shall support IPv6 addresses IAW RFC4291. (R)	5.3.5.4.3
53		Shall support IPv6 scoped addresses IAW RFC4007. (R)	5.3.5.4.3
54		if routing functions are supported: If DHCP is supported must be IAW RFC3315, if DHCPv6 is supported it shall be IAW RFC 3313. (C)	5.3.5.4.4

Table 3. SUT Capability and Functional Requirements (continued)

ID	Requirement (See note.)		UCR Reference
55	IPv6 Router Advertisements	If the system supports routing functions, the system shall inspect valid router advertisements sent by other routers and verify that the routers are advertising consistent information on a link and shall log any inconsistent router advertisements, and shall prefer routers that are reachable over routers whose reachability is suspect or unknown (C).	5.3.5.4.5.2
56		If the system supports routing functions, the system shall include the MTU value in the router advertisement message for all links in accordance with RFC 2461 and RFC 4861. (C)	
57		IPv6 Neighbor Discovery: The system shall not set the override flag bit in the neighbor advertisement message for solicited advertisements for anycast addresses or solicited proxy advertisements. (R)	
58	IPv6 Neighbor Discovery	if routing functions are supported: Neighbor discovery IAW RFCs 2461 and 4861. (C)	5.3.5.4.5
59		The system shall not set the override flag bit in the neighbor advertisement message for solicited advertisements for anycast addresses or solicited proxy advertisements. (R)	
60		The system shall set the override flag bit in the neighbor advertisement message to “1” if the message is not an anycast address or a unicast address for which the system is providing proxy service. (R)	
61	IPv6 SLAAC and Manual Address Assignment	If the system supports stateless IP address Auto-configuration, the system shall support IPv6 SLAAC for interfaces supporting UC functions in accordance with RFC 2462 and RFC 4862.(C)	5.3.5.4.6
62		If the product supports IPv6 SLAAC, the product shall have a configurable parameter that allows the function to be enabled and disabled. (C)	
63		If the product supports IPv6 SLAAC, the product shall have a configurable parameter that allows the “managed address configuration” flag and the “other stateful configuration” flag to always be set and not perform stateless auto-configuration. (C)	
64		If the product supports stateless IP address auto-configuration including those provided for the commercial market, the DAD shall be disabled in accordance with RFC 2462 and RFC 4862.(C)	
65		The system shall support manual assignment of IPv6 addresses. (R)	
66		If the system provides routing functions, the system shall default to using the “managed address configuration” flag and the “other stateful flag” set to TRUE in their router advertisements when stateful auto-configuration is implemented. (C)	
67	IPv6 ICMP	The system shall support the ICMPv6 as described in RFC 4443. (R)	5.3.5.4.7
68		The system shall have a configurable rate limiting parameter for rate limiting the forwarding of ICMP messages. (R)	
69		The system shall support the capability to enable or disable the ability of the system to generate a Destination Unreachable message in response to a packet that cannot be delivered to its destination for reasons other than congestion. (R) Required if LS supports routing functions.	
70		The system shall support the enabling or disabling of the ability to send an Echo Reply message in response to an Echo Request message sent to an IPv6 multicast or anycast address (C). Required if LS supports routing functions.	
71		The system shall validate ICMPv6 messages, using the information contained in the payload, prior to acting on them (C). Required if LS supports routing functions.	
72	IPv6 Routing Functions	If the system supports routing functions, the system shall support the OSPF for IPv6 as described in RFC 2740 (C).	5.3.5.4.8
73		If the system supports routing functions, the system shall support securing OSPF with Internet Protocol Security (IPSec) as described for other IPSec instances in UCR 2008, Section 5.4 (C).	
74		If the system supports routing functions, the system shall support OSPF for IPv6 as described in RFC 2740, router to router integrity using IP authentication header with HMAC-SHA1-96 with ESP and AH as described in RFC 2404, shall support OSPFv3 IAW RFC 4552 (C).	
75		If the system supports routing functions, the system shall support the Multicast Listener Discovery (MLD) process as described in RFC 2710 and extended in RFC 3810 (C).	
76	Site Requirements	Engineering Requirements: Physical Media for ASLAN and non-ASLAN. (R) (Site requirement)	5.3.1.7.1
77		Battery Back up two hours for non-ASLAN components and eight hours for ASLAN components. (R) (Site requirement)	5.3.1.7.5
78		Availability of 99.999 percent (Special C2), and 99.997 percent (C2) for ASLAN (R), and 99.9 percent (non-C2 and C2(R) for non-ASLAN. (R) (Site requirement)	5.3.1.7.6
79	IA Security requirements	Port-Based access Control IAW IEEE 802.1x (R)	5.3.1.3.2
80		Secure methods for network configuration. SSH2 instead of Telnet and support RFCs 4251-4254. Must use HTTPS instead of http, and support RFCs 2660 and 2818 for ASLAN and non-ASLAN. (R)	5.3.1.6
81		Security (R)	5.3.1.3.8
82		Must meet IA requirements IAW UCR 2008 Section 5.4 for ASLAN and non-ASLAN. (R)	5.3.1.5
NOTE: All requirements are for core, distribution, and access layer components unless otherwise specified.			

Table 3. SUT Capability and Functional Requirements (continued)

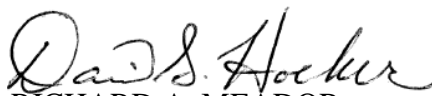
LEGEND:					
ASLAN	Assured Services Local Area Network	HTTPS	Hyper Text Transfer Protocol, Secure	MTU	Maximum Transmission Unit
C	Conditional	IA	Information Assurance	OSPF	Open Shortest Path First
C2	Command and Control	IAW	In Accordance with	OSPFv3	Open Shortest Path First Version 3
C2(R)	Command and Control ROUTINE only	ICMP	Internet Control Message Protocol	PHB	Per Hop Behavior
CPU	Central Processing Unit	ICMPv6	Internet Control Message Protocol for IPv6	QoS	Quality of Service
DAD	Duplicate Address Detection	ID	Identification	R	Required
DHCP	Dynamic Host Configuration Protocol	IEEE	Institute of Electrical and Electronics Engineers	RFC	Request for Comments
DHCPv6	Dynamic Host Configuration Protocol for IPv6	IPv4	Internet Protocol version 4	SLAAC	Stateless Auto Address Configuration
DISR	Department of Defense Information Technology Standards Registry	IPv6	Internet Protocol version 6	SNMP	Simple Network Management Protocol
DSCP	Differentiated Services Code Point	LACP	Link Aggregation Control Protocol	SSH2	Secure Shell Version 2
E2E	End-to-End	LAN	Local Area Network	SUT	System Under Test
HMAC	Hash-based Message Authentication Code	LS	LAN Switch	TCI	Tag Control Information
HTTP	Hypertext Transfer Protocol	Mbps	Megabits per second	UC	Unified Capabilities
		MPLS	Multiprotocol Label Switching	UCR	Unified Capabilities Requirements
		ms	millisecond	VLAN	Virtual Local Area Network
				VPN	Virtual Private Network

5. No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/gov users on the NIPRNet at <https://stp.fhu.disa.mil>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at <http://jit.fhu.disa.mil> (NIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitc.fhu.disa.mil/tssi>. Due to the sensitivity of the information, the Information Assurance Accreditation Package (IAAP) that contains the approved configuration and deployment guide must be requested directly through government civilian or uniformed military personnel from the Unified Capabilities Certification Office (UCCO), e-mail: disa.meade.ns.list.unified-capabilities-certification-office@mail.mil.

6. The JITC point of contact is LTC David Hocker, DSN 879-6787, commercial (520) 538-6787, FAX DSN 879-4347, or e-mail to david.s.hocker2.mil@mail.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The Tracking Number for the SUT is 0920503.

FOR THE COMMANDER:

Enclosure a/s


for RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of the Hewlett Packard (HP) A7500 Series with Release 5.20

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ADDITIONAL REFERENCES

- (c) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008 Change 1," 22 January 2010
- (d) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006
- (e) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the Hewlett Packard (HP) A7500 Series with Release 5.20," 25 March 2011
- (f) Joint Interoperability Test Command, "Information Assurance (IA) Assessment of 3Com S7900E (Tracking Number 0920503)," 23 November 2010
- (g) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of the 3Com Switch 7900 Series with Release 5.20," 23 November 2010